Appendix O

Shasta and Tehama County Production Statistics and Field Notes from Site Visit to Mount Lassen Trout Farms, Inc.

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Table O-1. Tehama County Production Statistics, 1992 and 1997

		All Farms	
Item	Unit	1997	1992
Farms	number	1,362	1,381
Land in farms	acres	885,426	1,016,851
Average size of farm	acres	650	736
Value of land and buildings*			
Average per farm	Dollars	772,234	651,023
Average per acre	Dollars	1,106	939
Estimated market value of all machinery and equipment*			
Average per farm	Dollars	39,255	34,737
Farms by size			
1 to 9 acres		251	240
10 to 49 acres		529	556
50 to 179 acres		259	249
180 to 499 acres		144	142
500 to 999 acres		67	70
1,000 acres or more		112	124
Total cropland	farms	1,063	1,116
	acres	127,019	20,902
Harvested cropland	farms	831	897
	acres	62,038	60,380
Irrigated land	farms	1,001	988
	acres	85,571	71,572

		All Farms	
Item	Unit	1997	1992
Market value of agricultural products sold			
Total for county	Dollars	\$107,102	\$95,041
Average per farm	Dollars	\$78,636	\$68,820
Crops, including nursery and greenhouse crops	Dollars	\$66,798	\$56,677
Livestock, poultry, and their products	Dollars	\$40,304	\$38,364
Farms by value of sales			
Less than \$2,500		357	383
\$2,500 to \$4,999		176	182
\$5,000 to \$9,999		160	181
\$10,000 to \$24,999		241	213
\$25,000 to \$49,999		125	136
\$50,000 to \$99,999		109	94
\$100,000 or more		194	192
Total farm production expenses			
Total for county	Dollars	80,743	79,887
Average per farm	Dollars	59,282	57,874
Operators by principal occupation			
Farming		694	719
Other		668	662
Operators by days worked off farm			
Any		716	743
200 days or more		462	480
Livestock and poultry			
Cattle and calves inventory	Farms	559	570
	Number	85,270	80,440
Hogs and pigs inventory	Farms	40	52
	Number	458	2,053
Sheep and lambs inventory	Farms	74	110
	Number	6,522	7,782
Layers and pullets 13 weeks old and older	Farms	62	83
inventory	Number	1,226	1,582

		All Farms	
Item	Unit	1997	1992
Selected crops harvested			
Wheat for grain	Farms	35	28
	Acres	6,413	4,367
	Bushels	331,438	263,592
Barley for grain	Farms	4	7
	Acres	465	1,242
	Bushels	21,250	47,114
Rice	Farms	4	7
	Acres	723	1,277
	Hundred-weight	51,805	90,210
Hay, alfalfa, other wild silage	Farms	149	214
	Acres	12,069	14,123
	Tons, dry	36,301	48,232
Vegetables harvested	Farms	28	16
	Acres	186	61
Land in orchards	Farms	662	685
	Acres	36,956	35,422

^{*} Data are based on a sample of farms.

Source: U.S. Department of Agriculture, National Agricultural Statistics Service. 1997 Census of Agriculture, Volume 1 Geographic Area Series, "Table 1. County Summary Highlights: 1997." This electronic series presents summary statistics for each county and state together with comparable data from the 1992 census. The items included are the same for all States and counties, except selected crops harvested, which vary by state. Data for 1997 and 1992 are directly comparable for acreage and inventories. Dollar values have not been adjusted for changes in price levels.

Table O-2. Shasta County Production Statistics, 1992 and 1997

		All	Farms
Item	Unit	1997	1992
Farms	number	850	844
Land in farms	acres	316,743	388,084
Average size of farm	acres	373	460
Value of land and buildings*			
Average per farm	Dollars	\$419,564	\$469,095
Average per acre	Dollars	\$1,021	\$1,066
Estimated market value of all machinery and equipment*			
Average per farm	Dollars		
Farms by size			
1 to 9 acres		261	224
10 to 49 acres		260	272
50 to 179 acres		135	137
180 to 499 acres		75	93
500 to 999 acres		47	37
1,000 acres or more		72	81
Total cropland	farms	612	621
	acres	59,487	62,649
Harvested cropland	farms	401	396
	acres	22,659	23,897
Irrigated land	farms	605	594
	acres	38,863	44,282
Market value of agricultural products sold			
Total for county	Dollars	\$31,349	\$33,198
Average per farm	Dollars	\$36,881	\$39,334
Crops, including nursery and greenhouse crops	Dollars	\$18,375	\$13,031
Livestock, poultry, and their products	Dollars	\$12,975	\$20,167

		All Farms	
Item	Unit	1997	1992
Farms by value of sales			
Less than \$2,500		356	346
\$2,500 to \$4,999		135	141
\$5,000 to \$9,999		112	102
\$10,000 to \$24,999		106	108
\$25,000 to \$49,999		5,741	6,024
\$50,000 to \$99,999		43	63
\$100,000 or more			
Total farm production expenses			
Total for county	Dollars	\$23,652	\$28,965
Average per farm	Dollars	\$27,794	\$32,359
Operators by principal occupation			
Farming		354	385
Other		496	459
Operators by days worked off farm			
Any		477	457
200 days or more		319	282
Livestock and poultry			
Cattle and calves inventory	Farms	486	482
	Number	37,758	45,050
Hogs and pigs inventory	Farms	43	67
	Number	273	1,189
Sheep and lambs inventory	Farms	65	74
	Number	1,417	1,682
Layers and pullets 13 weeks old and older	Farms	78	74
inventory	Number	1,819	1,682

		All Farms	
Item	Unit	1997	1992
Selected crops harvested			
Wheat for grain	Farms	15	17
	Acres	945	958
	Bushels	46,518	43,663
Barley for grain	Farms	9	14
	Acres	493	706
	Bushels	29,064	44,873
Rice	Farms	1	14
Hay, alfalfa, other wild silage	Farms	189	213
	Acres	13,363	17,147
	Tons, dry	41,670	66,512
Vegetables harvested	Farms	37	28
	Acres	99	235
Land in orchards	Farms	163	174
	Acres	997	1,539

^{*} Data are based on a sample of farms.

Source: U.S. Department of Agriculture, National Agricultural Statistics Service. 1997 Census of Agriculture, Volume 1 Geographic Area Series, "Table 1. County Summary Highlights: 1997." This electronic series presents summary statistics for each county and state together with comparable data from the 1992 census. The items included are the same for all States and counties, except selected crops harvested, which vary by state. Data for 1997 and 1992 are directly comparable for acreage and inventories. Dollar values have not been adjusted for changes in price levels.

Table O-3. Mount Lassen Trout Farms Facilities Visited on December 14, 2000, and Excerpted Notes About Each Facility

Facility and Location	Type of Visit	Potential Connection to Restoration Project	Comments
Willow Springs Battle Creek Watershed; 1000' NW of Coleman Canal and South Fork Battle Creek near Coleman Diversion Dam	Drove by, did not tour but saw from a distance, saw water supply pipe	The source springs for this facility are hydrologically connected to the Inskip canal. Potential connectivity with the environment is high, entails direct use of Battle Creek water in facility.	Water supply here is reduced up to 50% (4-5 cfs) when PG&E's Inskip canal is offline. PG&E believes that Willow Springs are augmented by leakage from canal (per Mr. Mackey). Even without a disease risk, construction of new facilities at Inskip could temporarily and/or permanently affect water supply at this facility.
Macam Springs Battle Creek Watershed; 1400' SW South Fork Battle Creek about 0.5 miles u.s. Inskip Powerhouse	Toured raceways, exterior of R&D facilities, saw water supply from about 100 yards	Potential connectivity with environment from birds is moderate, lower potential connectivity due to terrestrial animals.	
Jeffcot West Battle Creek Watershed; water supply springs are about 30 feet west of Eagle Canyon Canal, approx. 1.3 miles due south of EC Diversion Dam and about 0.3 miles S. of North Fork Battle Creek; earthen ponds are about 1000 feet S. of North Fork Battle Creek directly under transmission lines.	Toured water supply springs, concrete raceways, earthen ponds	Extremely high potential connectivity with environment from avian, terrestrial, and/or amphibious animals due to extremely close proximity of source springs (in circa 1 acre wetland) to Eagle Canyon canal, and the isolated, open nature of earthen ponds.	Blue and green herons were present in the immediate vicinity of the earthen ponds. Source spring is a wetland that undoubtedly harbors individual animals that may contact Eagle Canyon canal waters. Facility likely could not be completely disinfected due to earthen nature and nature of source springs/wetland.
Jeffcot East Battle Creek Watershed; water supply springs are perhaps 100 to 200 feet east of Eagle Canyon Canal, approx. 1.3 miles due south of EC Diversion Dam and about 1500 feet S of North Fork Battle Creek; facility discharges directly into EC canal.	Toured water supply, spawning sheds, concrete raceways, some buildings, discharge site into Eagle Canyon canal	High potential connectivity with environment from birds, terrestrial animals and/or amphibians due to close proximity of source springs and discharge to Eagle Canyon canal.	This facility includes perhaps 33% of the MLTF brood stock. Most of the facility is indoors. 90% of source springs have been capped with plastic and gravel. Possible that the facility could be disinfected, though probably not the source springs.

Table O-3. Continued

Facility and Location	Type of Visit	Potential Connection to Restoration Project	Comments
Volta Battle Creek Watershed; water supply is a diversion from Brush Creek, likely upstream of anadromous fish passage (not verified) but within perhaps 1500 feet of the anadromous section of North Fork of Battle Creek, discharges back into Brush Creek.	Toured earthen ponds, water supply from Brush Creek, discharge to Brush Creek	Unknown level of potential connectivity. Mr. Mackey felt that this facility was at relatively low risk (they have had no otter problems, though bears have raided the ponds), but it is directly connected to surface water and is also connected to Battle Creek by a riparian corridor; would be impossible to isolate from surface water.	
Battle Creek Battle Creek Watershed; water supply is springs that feed upper Ripley Creek (probably above anadromous reach – need to verify), earthen ponds are within 100 feet of X-C canal; facility discharges directly to X-C canal, facility is about 5000 feet from nearest segment of South Fork Battle Creek.	Toured water supply, circular tanks, earthen ponds, discharge to X-C canal, exterior of buildings	Extremely high potential connectivity with environment from birds, terrestrial animals, and/or amphibians due to extremely close proximity of facilities to X-C canal.	Currently, Ripley Creek water runs through this facility into X-C canal. Would this water be available for adaptive management? Who has rights to the water discharged into canal, what about the rest of upper Ripley Creek not used by MLTF?
Meadow Brook Paynes Creek Watershed; at confluence with Plum Creek; approximately 5.5 air miles S. of nearest segment of South Fork Battle Creek.	Toured water supply, exterior concrete raceways, exterior of buildings, office	Low potential connectivity with environment due to distance from Battle Creek. However, anecdotes suggest some overlap in bird populations between Battle Creek and Paynes Creek. Facility already is either indoors or under bird nets.	Mr. Mackey told of an increased number of bird vectors that showed up here when CDFG excluded birds from Darrah Springs Hatchery. Also gave anecdotal evidence of hatchery-habituated birds (some birds wouldn't leave, and instead nearly starved, when bird exclusion nets were installed here).
Dales Paynes Creek Watershed; approximately 7.0 air miles S. of nearest segment of Battle Creek in vicinity of CNFH.	Self-tour of exterior raceways, did not see water supply	Low risk due to distance from Battle Creek. However, anecdotes suggest some overlap in bird populations between Battle Creek and Paynes Creek.	

Level/description of potential connection between facility and natural environment/Battle Creek through animal vectors and/or hydrologic connection